VOLVO CAR CORPORATION

EXECUTIVE ORDER A-018-0138

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED:

That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	TEST GROUP	VEHICLE TYPE	EXHAUST EMISSION STANDARD CATEGORY		JL LIFE les)	IN- COMP (*=N/A or A/E≖ex	MEDIATE -USE -LIANCE -full in-use; -h. / evap. late in-use)	FUEL TYPE		
2006	6VVXV02.4S2N	Passenger Car	"LEV I!" Super Ultra Low Emission Vehicle (LEV II	EXH / ORVR	EVAP	EXH	EVAP	Gasoline		
2000		r assenge: Car	SULEV)	150K	150K	A	*	Casoline		
No.	ECS & SP	EVAPORATIV	EVAPORATIVE FAMILY (EVAF) DISPLACE							
1	TWC(2), 2HO2S,	6VVX	6VVXR0124ZER							
2	2 TWC(2), HAFS, HO2S, SFI, OBD(P), DOR		6VVX	6VVXR0130ZER				2.4		
*	*			•				.4		
*		*		±						

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.

BE IT FURTHER RESOLVED:

That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's "NMOG Fleet Average" (PC or LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

BE IT FURTHER RESOLVED:

That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

BE IT FURTHER RESOLVED:

That the listed vehicle models are granted a partial zero-emission-vehicle (PZEV) allowance of 0.2 pursuant to 13 CCR Section 1962 (c)(2). The listed vehicle models are granted a 0.0026 g/mi NMOG credit for all certification and in-use testing pursuant to 13 CCR Section 1961(a)(12) [direct ozone reduction].

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this 26TH day of May 2005.

Allen Lyons, Chief

Mobile Source Operations Division

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

NMOG FLEET NMOG @ RAF=* AVERAGE [g/mi] CH4 RAF = *		NMOG or	CH4=methane; NMOG=non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CO=carbon monoxide; NOx=oxides of nitrogen; HCHO=formaldehyde; PM=particulate matter; RAF=reactivity adjustment factor; 2/3 D [g/rest]=2/3 day diurnal+hot-soak; RL [g/mi]=running loss; ORVR [g/gallon dispensed]=on-board refueling vapor recovery; g=gram; mg=milligram											
CERT	STD	NMOG	NMHC	NMHC STD	mi=mile; K	L [g/m/]=run/ :1000 miles;	iing loss; OR F=degrees F	VR (g/gallon ahrenheit; S	dispensed]= FTP=suppler	on-board ret nental federa	ueling vapor r ai test procedi	ecovery; g ≃g ≀re	ram; mg=millig	gram
0.036	0.046	CERT	CERT	[g/mi]	00 [g/mi]	NOx	g/mi]	HCHO	[mg/mi]	PM [g/mi]	Hwy NO	x [g/mi]
0.030	0.040	[g/mi]	[g/mi]	[S, (, ,)	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
A VANCOUNT OF THE PROPERTY OF	@ 50K	*	*	*	*	*	*	•	*	*	*	*	*	*
ine var Sanis i di 100	@ UL	0.008	*	0.010	0.2	1.0	0.01	0.02	*	4.	*	*	0.01	0.03
	₫ 50°F & 4K	*	*	*	*	+	*	*	*	*	*	*	*	*

CO [g/mi]			NMHC+NOx [g/mi] (composite)		CO [g/mi] (composite)		NMHC+NOx [g/mi] [US06]		CO [g/mi] [US06]		NMHC+NOx [g/mi] [SC03]		CO [g/mi] [SC03]	
@ 2	0°F & 50K		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	0.8	SFTP @ 4000 miles	*	*	*	*	0.01	0.14	0.6	8.0	0.002	0.20	0.1	2.7
STD	10.0	SFTP @ * miles	*	*	*	*	*	•	*	*	*	*	*	*

Evaporative Family	3-Days Diurn (grams/te			ıal + Hot Soak est) @ UL	Runnin (grams/m	g Loss ille) @ UL	On-Board Refueling Vapor Recovery (grams/gallon) @ UL			
	CERT	STD	CERT	STD	CERT	STD	CERT	STD		
6VVXR0124ZER	0.26	0.35	0.30	0.35	0.01	0.05	0.01	0.20		
6VVXR0130ZER	0.30	0.35	0.27	0.35	0.01	0.05	0.06	0.20		
*	*	*	*	*	*	*	*	*		
*	*	*	*	*	*	*	*	*		

* = not applicable; UL=useful life; PC=passenger car; LDT=light-duty truck; MDV=medium-duty vehicle; ECS= Emission Control System; STD= Standard; CERT= Certification; LVW=loaded vehicle weight; ALVW=adjusted LVW; LEV=low emission vehicle; TLEV=transitional LEV; ULEV=ultra LEV; SULEV=super ULEV; TWC=3-way catalyst; ADSTWC=adsorbing TWC; WU=warm-up catalyst; OC=oxidizing catalyst; O2S=oxygen sensor; HO2S=heated O2S; AFS/HAFS=air- fuel ratio sensor / heated AFS; EGR=exhaust gas recirculation; AIR=secondary air injection; PAIR=pulsed AIR; MFI= multiport fuel injection; SFI=sequential MFI; TBI=throttle body injection; TC/SC= turbo/super charger; CAC=charge air cooler; OBD (F)/(P)=full/partial on-board diagnostic; DOR=direct ozone reducing; prefix 2=parallel; (2) suffix=series; CNG/LNG= compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85="85%" Ethanol Fuel

2006 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	IN- COMP (*=N/A or A/E=ex	MEDIATE USE LIANCE fult in-use; h. / evap. late in-use)	PHASE-IN STD.	OBD I
					EXH	EVAP		
VOLVO	S40 2.4i	6VVXR0124ZER	1	2.4	Α		SFTP	Partia
VOLVO	V50 2.4i	6VVXR0124ZER	1	2.4	Α	*	SFTP	Partia
VOLVO	S60 FWD	6VVXR0130ZER	2	2.4	Α	*	SFTP	Partia
VOLVO	V70 FWD	6VVXR0130ZER	2	2.4	Α		SFTP	Partia